

Dentists

(O*NET 32105A, 32105B, 32105D, 32105F, and 32105G)

Significant Points

- Most dentists have at least 8 years of education beyond high school.
- Employment of dentists is expected to grow slower than the average as young people are troubled less by tooth decay.
- Dental care will focus more on prevention, including teaching people how to care better for their teeth.

Nature of the Work

Dentists diagnose, prevent, and treat teeth and tissue problems. They remove decay, fill cavities, examine x rays, place protective plastic sealants on children's teeth, straighten teeth, and repair fractured teeth. They also perform corrective surgery on gums and supporting bones to treat gum diseases. Dentists extract teeth and make models and measurements for dentures to replace missing teeth. They provide instruction on diet, brushing, flossing, the use of fluorides, and other aspects of dental care, as well. They also administer anesthetics and write prescriptions for antibiotics and other medications.

Dentists use a variety of equipment, including x-ray machines, drills, and instruments such as mouth mirrors, probes, forceps, brushes, and scalpels. They also wear masks, gloves, and safety glasses to protect themselves and their patients from infectious diseases.

Dentists in private practice oversee a variety of administrative tasks, including bookkeeping, and buying equipment and supplies. They may employ and supervise dental hygienists, dental assistants, dental laboratory technicians, and receptionists. (These occupations are described elsewhere in the *Handbook*.)

Most dentists are general practitioners, handling a variety of dental needs. Other dentists practice in one of eight specialty areas. *Orthodontists*, the largest group of specialists, straighten teeth. The next largest group, *oral and maxillofacial surgeons*, operate on the mouth and jaws. The remainder may specialize as *pediatric dentists* (dentistry for children); *periodontists* (treating gums and bone supporting the teeth); *prosthodontists* (making artificial teeth or dentures); *endodontists* (root canal therapy); *public health dentists*; and *oral pathologists* (studying oral diseases).



Dentists will focus on preventive care, teaching people how to better care for their teeth.

Working Conditions

Most dentists work 4 or 5 days a week. Some work evenings and weekends to meet their patients' needs. Most full-time dentists work about 40 hours a week, but others work more. Initially, dentists may work more hours as they establish their practice. Experienced dentists often work fewer hours. A considerable number continue in part-time practice well beyond the usual retirement age.

Most dentists are "solo practitioners," meaning they own their own businesses and work alone or with a small staff. Some dentists have partners, and a few work for other dentists as associate dentists.

Employment

Dentists held about 160,000 jobs in 1998. About 9 out of 10 dentists are in private practice. Others work in private and public hospitals and clinics, the Federal Government, and in dental research.

Training, Other Qualifications, and Advancement

All 50 States and the District of Columbia require dentists to be licensed. In most States, a candidate must graduate from a dental school accredited by the American Dental Association's Commission on Dental Accreditation, and pass written and practical examinations to qualify for a license. Candidates may fulfill the written part of the State licensing by passing the National Board Dental Examinations. Individual States or regional testing agencies give the written or practical examinations.

Currently, about 17 States require dentists to obtain a specialty license before practicing as a specialist. Requirements include 2 to 4 years of postgraduate education and, in some cases, completion of a special State examination. Most State licenses permit dentists to engage in both general and specialized practice. Dentists who want to teach or do research usually spend an additional 2 to 5 years in advanced dental training, in programs operated by dental schools or hospitals.

Dental schools require a minimum of 2 years of college-level pre dental education. However, most dental students have at least a bachelor's degree. Predental education emphasizes course work in the sciences.

All dental schools require applicants to take the Dental Admissions Test (DAT). When selecting students, schools consider scores earned on the DAT, the applicants' grade point average, and information gathered through recommendations and interviews.

Dental school usually lasts 4 academic years. Studies begin with classroom instruction and laboratory work in basic sciences including anatomy, microbiology, biochemistry, and physiology. Beginning courses in clinical sciences, including laboratory techniques, are also provided at this time. During the last 2 years, students treat patients, usually in dental clinics, under the supervision of licensed dentists.

Most dental schools award the degree of Doctor of Dental Surgery (D.D.S.). The rest award an equivalent degree, Doctor of Dental Medicine (D.M.D.).

Dentistry requires diagnostic ability and manual skills. Dentists should have good visual memory, excellent judgment of space and shape, a high degree of manual dexterity, and scientific ability. Good business sense, self-discipline, and communication skills are helpful for success in private practice. High school and college students who want to become dentists should take courses in biology, chemistry, physics, health, and mathematics.

Some dental school graduates work for established dentists as associates for a year or two in order to gain experience and save money to equip an office of their own. Most dental school graduates, however, purchase an established practice or open a new practice immediately after graduation. Each year about one-fourth to one-third of new graduates enroll in postgraduate training programs to prepare for a dental specialty.

Job Outlook

Employment of dentists is expected to grow slower than the average for all occupations through 2008. Although employment growth will provide some job opportunities, most jobs will result from the need to replace the large number of dentists projected to retire. Job prospects should be good if the number of dental school graduates does not grow significantly, thus keeping the supply of newly qualified dentists near current levels.

Demand for dental care should grow substantially through 2008. As members of the baby-boom generation advance into middle age, a large number will need maintenance on complicated dental work, such as bridges. In addition, elderly people are more likely to retain their teeth than were their predecessors, so they will require much more care than in the past. The younger generation will continue to need preventive check-ups despite treatments such as fluoridation of the water supply, which decreases the incidence of tooth decay.

Dental care will focus more on prevention, including teaching people how to care better for their teeth. Dentists will increasingly provide care that is aimed at preventing tooth loss—rather than just providing treatments, such as fillings. Improvements in dental technology will also allow dentists to provide more effective and less painful treatment to their patients.

However, the employment of dentists is not expected to grow as rapidly as the demand for dental services. As their practices expand, dentists are likely to hire more dental hygienists and dental assistants to handle routine services.

Earnings

Median annual earnings of salaried dentists were \$110,160 in 1998. Earnings vary according to number of years in practice, location, hours worked, and specialty.

Self-employed dentists in private practice tend to earn more than salaried dentists. A relatively large proportion of dentists is self-employed. Like other business owners, these dentists must provide their own health insurance, life insurance, and retirement benefits.

Related Occupations

Dentists examine, diagnose, prevent, and treat diseases and abnormalities. So do clinical psychologists, optometrists, physicians, chiropractors, veterinarians, and podiatrists.

Sources of Additional Information

For information on dentistry as a career and a list of accredited dental schools, contact:

✦ American Dental Association, Commission on Dental Accreditation, 211 E. Chicago Ave., Chicago, IL 60611. Internet: <http://www.ada.org>

✦ American Association of Dental Schools, 1625 Massachusetts Ave. NW, Washington, DC 20036. Internet: <http://www.aads.jhu.edu>

The American Dental Association will also furnish a list of State boards of dental examiners. Persons interested in practicing dentistry should obtain the requirements for licensure from the board of dental examiners of the State in which they plan to work.

Prospective dental students should contact the office of student financial aid at the schools to which they apply, for information on scholarships, grants, and loans, including Federal financial aid.

Optometrists

(O*NET 32108)

Significant Points

- All States and the District of Columbia require that optometrists be licensed, which requires a Doctor of Optometry degree from an accredited optometry school and passing both a written and a clinical State board examination.

- Employment growth will be fastest in retail optical stores and outpatient clinics.
- Optometrists usually remain in practice until they retire, so job openings arising from replacement needs are low.

Nature of the Work

Over half of the people in the United States wear glasses or contact lenses. Optometrists (doctors of optometry, also known as O.D.'s) provide most primary vision care.

Optometrists examine people's eyes to diagnose vision problems and eye diseases. They use instruments and observation to examine eye health and to test patients' visual acuity, depth and color perception, and their ability to focus and coordinate the eyes. They analyze test results and develop a treatment plan. Optometrists prescribe eyeglasses and contact lenses, and provide vision therapy and low vision rehabilitation. They administer drugs to patients to aid in the diagnosis of eye vision problems and prescribe drugs to treat some eye diseases. Optometrists often provide pre- and post-operative care to cataract, laser vision correction, and other eye surgery patients. They also diagnose conditions due to systemic diseases such as diabetes and high blood pressure, and refer patients to other health practitioners as needed.

Optometrists should not be confused with ophthalmologists or dispensing opticians. Ophthalmologists are physicians who perform eye surgery, and diagnose and treat eye diseases and injuries. Like optometrists, they also examine eyes and prescribe eyeglasses and contact lenses. Dispensing opticians fit and adjust eyeglasses and in some States may fit contact lenses according to prescriptions written by ophthalmologists or optometrists. (See statements on physicians and dispensing opticians elsewhere in the *Handbook*.)

Most optometrists are in general practice. Some specialize in work with the elderly, children, or partially sighted persons who need specialized visual devices. Others develop and implement ways to protect workers' eyes from on-the-job strain or injury. Some specialize in contact lenses, sports vision, or vision therapy. A few teach optometry, perform research, or consult.

Most optometrists are private practitioners who also handle the business aspects of running an office, such as developing a patient base, hiring employees, keeping records, and ordering equipment and supplies. Optometrists who operate franchise optical stores may also have some of these duties.

Working Conditions

Optometrists work in places—usually their own offices—which are clean, well lighted, and comfortable. Most full-time optometrists work about 40 hours a week. Many work Saturdays and evenings



Optometrists diagnose vision problems and eye diseases.